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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/178,329 10/23/98 NOWAK

M 053649-0003

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IM22/0614

EXAMINER

JACKSON, M

ART UNIT

PAPER NUMBER

1773

DATE MAILED:

06/14/01

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/178,329

Applicant(s)

NOWAK ET AL.

Examiner

Monique R Jackson

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,6,8-12,15,16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,8-12,15,16 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

1. The amendment filed 4/5/01 has been entered. Claims 1, 5-6, 8-12, 15-16, and 18-21 are pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 5-6, 8-12, 15-16 and 18-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Amended Claim 1 now recites the limitations “a second layer composed of an **extruded** solid polymer film material **having a water vapor transmission rate measured at 90 percent humidity, 100 degrees Fahrenheit, g/100in²/24hours of less than 0.5;**” in lines 5-7; and “**about less than three air pockets in ten square feet of the wrap material**” in lines 10-11. The original disclosure at the time the application was filed provides no support for these new limitations (in bold). First, in terms of the “**extruded** solid polymer film”, the description in the specification with regards to the second layer only indicates that it is a polymer film material, not that it is extruded (Page 5, lines 13-19.) The specification does not that “the composite wrap material can be prepared, for example, by extrusion lamination as schematically depicted in Figure 2.” (Page 7, lines 6-7.) However, the

schematic shown in Figure 2 does not depict that the second layer or polymer film layer is an extruded layer, and the description only states that the composite can be formed by passing the paper and polymer film layers with the adhesive layer thereinbetween through a pair of nip rollers (Page 3, line 23 – Page 4, line 1; and Page 7.) There is no indication that the polymer film layer is an extruded layer or extruded directly onto the paper layer. In terms of the air pockets, the specification at the time of the invention recites “substantially no air pockets thereinbetween” but provides no quantitative amounts for “substantially no air pockets” or evidence that “substantially no air pockets” would equate to **“about less than three air pockets in ten square feet of the wrap material.”** Similarly, the original disclosure does not provide a quantitative value for the moisture vapor barrier properties of the composite or is there any evidence in the specification at the time of filing the application that would clearly indicate to one skilled in the art that the moisture vapor barrier properties equate to **a water vapor transmission rate measured at 90 percent humidity, 100 degrees Fahrenheit, g/100in²/24hours of less than 0.5.** It is also noted that Claim 15 contains the new limitation “provides a higher burst strength than papers without the second layer of extruded solid polymer film and the adhesive layer” in lines 2-4. Once again, the original disclosure provides no support or evidence of this limitation as a part of the invention at the time the application was filed. The limitation “extruded” is also present in amended claim 18. The Examiner notes that the submitted declarations have been considered but do not overcome the new matter rejections.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1773

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claim 18 is rejected under 35 U.S.C. 102(b) as anticipated by Fuerholzer et al (USPN 3,616,191.) Fuerholzer et al teach a method of obtaining improved adhesion of extruded olefin polymer coating materials to packaging material substrate, involving the use of a hydrolyzed copolymer of an olefin and ester of an unsaturated alcohol, e.g., an ethylene-vinyl acetate copolymer, as an adhesion improving primer or tie coat which permits extrusion of the coating material onto the primed surface at a lower temperature than ordinarily required, resulting in a better bond of coating material to substrate than ordinarily obtained at those lower temperature (Abstract.) The invention is applicable to extrusion coating of olefin polymers, and particularly by polyethylene or copolymers of ethylene with such ester monomers as vinyl acetate, methyl acrylate, etc. (5:2-5.) Any of the flexible wrapping materials commonly used in the packaging art are suitable substrates in the practice of the invention, including for example, Kraft paper, paperboard, glassine, and regenerated cellulose (3:61-65.)

7. Claims 1, 5, 6, 8, 10, 11, 15, 16, and 18 are rejected under 35 U.S.C. 102(e) as anticipated by DeFife et al (USPN 6,150,035.) DeFife et al teach a multilayer laminate comprising a substrate sheet of paper, a second coating of polyolefin film having its upper surface in contact with and bonded to the lower surface of the substrate sheet, and a polymer resin coating in contact with and bonded to the lower surface of the second coating of polyolefin film (Abstract; 7:17-26.) The polyolefin film may comprises for example, polyethylene or polypropylene (3:36-

Art Unit: 1773

41.) The polyolefin layers can be extrusion coated onto the paper substrate or alternatively the films can be coextruded onto the paper substrate (4:36-59.) The type of paper used for the substrate depends on the end use of the laminate and include for example paper, clay coated paper, glassine, polymer coated paper, paperboard and Kraft paper (3:2-11.) Although paper of any weight can be employed as a substrate material, paper having weights in the range of from about 20 to about 150 pounds per ream are useful, and papers having weights in the range of from about 30 to about 60 pounds per ream are preferred, wherein the term "ream" equals 3000 square feet (3:13-20.) The polymer resin coating comprises thermoplastic polymers such as polyester and ethylene vinyl acetate (7:43-55.) The polymer resin coating may further comprise fillers such as mica, silica, wollastonite, glass fibers, talc, graphite, boron fibers, sapphire fibers, steel fibers, or polymeric or polyester fibers (12:45-53.) In terms of composite properties such as water vapor barrier properties, folding properties, and strength, given that the composite taught by DeFife et al comprises the same materials as the instantly claimed invention, the invention taught by DeFife et al would inherently possess the same properties as instantly claimed.

Claim Rejections - 35 USC § 103

8. Claims 1, 5, 6, 8, 10, 11, 12, 15, 16, 19, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuerholzer et al in view of the admitted prior art. The teachings of Fuerholzer et al are discussed above. Fuerholzer et al do not specifically teach that the basis weight of the paper substrate is about 20-60 lbs/3,000 sq.ft. or that one of the composite layers is metallized, however metallization or the incorporation of a metallized layer in a packaging composite material is well known and conventional in the art to provide improved barrier properties for a given packaging application, and it would have been obvious to one having

Art Unit: 1773

ordinary skill in the art to utilize a conventional metallization process on the paper substrate or polymer layer to provide the desired improved barrier properties, such as moisture and vapor barrier properties, for a particular packaging application and further to utilize routine experimentation to determine the optimum basis weight of the paper substrate taught by Fuerholzer et al for a particular packaging application given that basis weight is a known result effected variable. Additionally, though Fuerholzer et al do not teach the addition of pigments to one or more layers of the composite, the use of pigments is well known and conventional in the art to provide the desired color of the resulting product, and would have been obvious to one having ordinary skill in the art at the time of the invention. Further, given that it is conventional in the art to wrap reams of paper with polyethylene-coated paper packaging materials to provide a moisture barrier as evidenced by the admitted prior art (Page 1, lines 11-19), it would have been obvious to one having ordinary skill in the art to utilize the polyethylene coated paper packaging material taught by Fuerholzer which provides improved adhesion between the polyethylene coating and the paper substrate as a ream wrap or other suitable packaging material.

9. Claims 1, 5, 6, 8-12, 15-16, 18-21 are rejected under 35 U.S.C. 103(a) as unpatentable over Wiesman (USPN 4,196,247) in view of the admitted prior art. Wiesman teaches a packaging materials comprising a flexible packaging material substrate, such as a paper substrate or a metal foil; a normally tacky heat sealable wax composition comprising wax, isobutylene, and petrolatum, coated on a surface of the substrate; and a non-blocking solidified hot melt coating applied over the heat sealable wax composition wherein the non-blocking coating comprises a solidified mixture of petroluem wax and a polymer resin selected from the group consisting of low and medium density polyethylene and ethylene vinyl acetate (Col. 1; 2:33-35;

Claim 7.) Wiesman further teach that while a gravure cylinder is preferably utilized for applying the hot melt to the adhesive coating at a controlled thickness, spraying or other application methods may be utilized. Though Wiesman does not specifically teach extruding the hot melt coating, extrusion coating of a hot melt polymer onto a substrate is a well known and conventional coating method that would have been obvious to one having ordinary skill in the art at the time of the invention. Wiesman also does not specifically teach that the basis weight of the paper substrate is about 20-60 lbs/3,000 sq.ft. or that one of the composite layers is metallized, however metallization or the incorporation of a metallized layer in a packaging composite material is well known and conventional in the art to provide improved barrier properties for a given packaging application, and it would have been obvious to one having ordinary skill in the art to utilize a conventional metallization process on the paper substrate or polymer layer to provide the desired improved barrier properties, such as moisture and vapor barrier properties, for a particular packaging application and further to utilize routine experimentation to determine the optimum basis weight of the paper substrate taught by Wiesman for a particular packaging application given that basis weight is a known result effected variable. Additionally, though Wiesman does not teach the addition of pigments to one or more layers of the composite, the use of pigments is well known and conventional in the art to provide the desired color of the resulting product, and would have been obvious to one having ordinary skill in the art at the time of the invention. Further, given that it is conventional in the art to wrap reams of paper with wax-coated or polyethylene-coated paper packaging materials to provide a moisture barrier as evidenced by the admitted prior art (Page 1, lines 11-19), it would have been

Art Unit: 1773

obvious to one having ordinary skill in the art to utilize the wax coated paper packaging material taught by Wiesman as a ream wrap or other suitable packaging material.

Response to Arguments

10. Applicant's arguments filed 4/5/01 have been fully considered but are moot in view of the new ground(s) of rejection. The declarations submitted 4/5/01 have been fully considered but are not persuasive in overcoming the new matter rejection stated above. The declarations recite "[a] person of ordinary skill in the art of packaging would understand [substantially free of air pockets] to mean that there are approximately less than three air pockets of about 1mm in diameter formed between the substrate and the laminate in ten square feet of material" and "[t]he water vapor transfer rate (WVTR) as determined by a standardized test method such as TAPPI T464 om-90 for a product made in accordance with the claimed invention is less than 0.5g/100in²/24 hr at 100 degrees Fahrenheit, 90% relative humidity". However, the declarations provide no evidence supporting these statements and hence, it is the Examiner's position that these statements are opinions of the Applicant rather than values known to one skilled in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5436 for regular communications and 703-305-3599 for After Final communications.

Application/Control Number: 09/178,329


Page 9

Art Unit: 1773

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



mrj
June 11, 2001



Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700